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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/856,376 05/14/97 CHEE

M 16528X-02501

020350 HM22/0117
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EXAMINER

MARSCHEL, A

ART UNIT	PAPER NUMBER
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1631

14

DATE MAILED:

01/17/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 08/856,376	Applicant(s) Chee et al.
	Examiner Ardin Marschel	Group Art Unit 1631

Responsive to communication(s) filed on Oct 16, 2000

This action is **FINAL**.

Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle* 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

Claim(s) 1 and 3-14 is/are pending in the application.
 Of the above, claim(s) _____ is/are withdrawn from consideration.

Claim(s) _____ is/are allowed.

Claim(s) 1 and 3-14 is/are rejected.

Claim(s) _____ is/are objected to.

Claims _____ are subject to restriction or election requirement.

Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on _____ is/are objected to by the Examiner.

The proposed drawing correction, filed on _____ is approved disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All Some* None of the CERTIFIED copies of the priority documents have been
 received.
 received in Application No. (Series Code/Serial Number) _____.
 received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, ~~paper(s)~~: (1 sheet)

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

Applicants' arguments, filed 10/16/00, have been fully considered but they are not deemed to be persuasive. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.

Claims 1, 3-9, and 11-14 are rejected, as discussed below, under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 5-8 are directed to allele-specific oligonucleotides but are vague and indefinite in that they depend directly or indirectly from claim 10 which is a method claim. Clarification via clearer claim wording is requested.

In the instant claims, such as claim 1, the phrase "the complement of the segment" is present. It is well known that complements may not necessarily be 100% and of the same length but may be complementary to subsegments or complementary only to the extent of 80%, 50%, or even less. It is suggested that if applicants wish to claim only complements that are fully complementary and of the same length then this wording should be amended into the claims to clarify what complementarity practice is meant. This unclarity is present in all of the pending claims except claim 10 which does not recite the complement wording.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 4 is rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Product O 9253 of the 1990 Sigma Chemical Company Catalog.

It is noted that instant claim 4 requires that the nucleic acid segment hybridize to a segment of human mitochondrial nucleic acid or its complement wherein Table 1 defines polymorphic sites such that a base other than that of column 3 of the Table is present. Consideration of polymorphic site 315 in said Table reveals that a G residue is given in column 3 of said Table 1 but the SEQ ID NO: 30 mitochondrial nucleic acid has a C at position 315. Thus, further consideration of this site reveals that it is in a segment given as bases 303 - 315 as CCCCCCCTCCCCC. The complement of this segment is GGGGGAGGGGGGG. Sigma Product O 9253 is CCCCCCCCCCCCCC which is complementary to GGGGGAGGGGGGG with only one mismatch. This is a 92% complementarity which clearly will hybridize to said complement of the mitochondrial nucleic acid segment. Thus, Product O 9253 anticipates instant claim 4.

Claim 10 is rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Anderson et al. (1981).

It is noted that Anderson et al. on page 462 at Table 2 and elsewhere in associated discussion compares the human mitochondrial sequence of several genes as given in Table 1 of the instant application with the sequences of bovine mitochondrial nucleic acid which therefore anticipates instant claim 10.

On the enclosed PTO Form 1449 the citation to Anderson et al. is lined through to avoid duplication of citation because this reference was already cited on a PTO Form 892 sent with the office action, mailed 7/10/00.

The disclosure is objected to because of the following informalities:

It is noted that page 30 of the specification contains the first page of Table 1. Consideration of this page only reveals that the headings at the top of the columns are so poorly copied that most of the symbols therein are unreadable and illegible. Applicants are hereby informed of the need to supply a new page 30 which is legible and readable.

Appropriate correction is required.

No claim is allowed.

Papers related to this application may be submitted to Technical Center 1600 by facsimile transmission. Papers should be faxed to Technical Center 1600 via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with

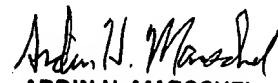
the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 1993), and 1157 OG 94 (December 28, 1993) (See 37 CFR § 1.6(d)). The CM1 Fax Center number is either (703) 308-4242 or (703) 305-3014.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ardin Marschel, Ph.D., whose telephone number is (703) 308-3894. The examiner can normally be reached on Monday-Friday from 8 A.M. to 4 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, Ph.D., can be reached on (703) 308-4028.

Any inquiry of a general nature or relating to the status of this application should be directed to Patent Analyst, Tina Plunkett, whose telephone number is (703) 305-3524 or to the Technical Center receptionist whose telephone number is (703) 308-0196.

January 12, 2001


ARDIN H. MARSCHEL
PRIMARY EXAMINER